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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Andreas Ruther	Group Art Unit: 1792
Serial No.: 10/511,080	Examiner: Elena Tsoy Lightfoot
Filed: October 12, 2004	Confirmation No.: 7054
For: METHOD FOR OVERPAINTING CHROMOPHORE AND/OR EFFECT-PRODUCING MULTI-LAYER PAINTS	I hereby certify that the attached correspondence is being submitted by EFS-Web as an eFiled Response, addressed to Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450, on Tuesday, January 19, 2010. /AimeeTPeluyera/ Aimee T. Peluyera

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APPEAL BRIEF

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I. REAL PARTY IN INTEREST

The real party in interest in this appeal is **BASF Coatings AG**.

II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences known to Appellants, Appellants' legal representatives, or assignee that will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

III. STATUS OF THE CLAIMS

Claims 1-3, 5-8, 12, 14-20, 22, and 24-25 are pending in the application.

Claims 4, 9-11, 12, 21, and 23 were canceled in a previous amendment.

Claims 1-3, 5-8, 12, 14-20, 22, and 24-25 stand finally rejected.

Claims 1-3, 5-8, 12, 14-20, 22, and 24-25 as they currently stand, are set forth in section VIII titled Claims Appendix.

Appellants hereby appeal the final rejection of Claims 1-3, 5-8, 12, 14-20, 22, and 24-25.

(No Claims have been withdrawn from consideration as subject to restriction and directed to a non-elected invention.)

IV. STATUS OF THE AMENDMENTS

No amendments have been filed subsequent to the final rejection of May 18, 2009. All amendments to date, therefore, have been entered in the claims as set forth herein.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 is directed to a process for overcoating a multicoat color and/or effect paint system comprising at least one color and/or effect basecoat (A) produced from at least one aqueous basecoat material (A) and at least one clearcoat (B) produced from at least one

liquid clearcoat material (B). (Application as filed, page 2, para. 0008, lines 1-4.) The process is carried out on a line at an automaker's plant and wherein the multicoat color and/or effect paint system is an OEM finish on a motor vehicle produced by means of electrostatic spray application. (Application as filed, page 1, lines 4-7, and page 5, para. 0018, lines 1-4 thereof.) The process comprises: (1) applying to an outer surface of the multicoat paint system by pneumatic spray application an extract of an aqueous basecoat material, which substantially corresponds or is identical to the aqueous basecoat material (A) or one of the aqueous basecoat materials (A) from which the basecoat (A) was produced, to form a resulting film (1). (Application as filed, page 2, para. 0008, lines 5-9 thereof.) The extract is a clearcoat material. (Application as filed, page 8, para. 0032, line 5.)

The extract is a coating material which comprises a binder and crosslinking agent that are the same as a binder and crosslinking agent in the aqueous basecoat material (A). (Application as filed, page 8, para. 0032, lines 1-3 thereof.)

The process further comprises: (2) flashing off and/or drying the resulting film (1) without curing it completely, (3) coating the resulting flashed off and/or dried film (2) by pneumatic spray application at a spraying pressure less than the pneumatic spray in step (1) with an aqueous basecoat material which substantially corresponds or is identical to the aqueous basecoat material (A) or one of the aqueous basecoat material (A) from which the basecoat (A) was produced to form a resulting aqueous basecoat film (3), (4) flashing off and/or drying the resulting aqueous basecoat film (3) without curing it completely, (5) coating the resulting flashed off and/or dried aqueous basecoat film (4) with at least one liquid clearcoat material to form at least one resulting clearcoat film, and (6) jointly curing the at least one resulting clearcoat film (5), the aqueous basecoat film (4), and the film (1), and, where present, any further uncured films that are present. (Application as filed, page 2, last 3 lines, to page 3, line 9.)

The process is used for overcoating an entire area of the multicoat paint system or for overcoating a defect to the multicoat paint system and all of the adjacent area up to a boundary. (Application as filed, page 10, para. 0047, lines 1-4 thereof.)

Independent claim 24 is directed to the same invention as claim 1 except, more specifically, in step (1) of the process, the extract is a coating material which comprises a binder and crosslinking agent which is the same binder or binders and the same crosslinking agent or agents as in the aqueous basecoat material (A), except at lower concentrations than are employed in the aqueous basecoat material (A). (Application as filed, page 8, para. 0032, lines 1-7.)

In addition, the aqueous basecoat material (A) and the extract comprise at least one ionically and/or nonionically stabilized polyurethane binder which is saturated, unsaturated, and/or grafted with olefinically unsaturated compounds. (Application as filed, page 6, lines 4-6.) Finally, the aqueous basecoat material (A) and the extract further comprise at least one crosslinking agent selected from the group consisting of blocked polyisocyanates and tris(alkoxycarbonylamino)triazines. (Application as filed, page 6, lines 6-9.)

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

1. Whether claims 1-3, 5-8, 12, 14-20, 22, 24, and 25 are unpatentable under 35 U.S.C. §103(a) over Mayer (US 5,633,037) and "Appellants' admitted state of art," further in view of Hartung et al. (US 5,368,944) and further in view of Duda et al. (US 6,495,201).

2. Whether claims 1-3, 5-8, 12, 14-20, 22, 24, and 25 are unpatentable under 35 U.S.C. §103(a) over Mayer (US 5,633,037) and AAA, further in view of Hartung et al. (US 5,368,944), and further in view of Duda et al. (US 6,495,201), as applied above, and further in view of Sakamoto et al (US 6,168,864).

VII. ARGUMENT

1. Claims 1-3, 5-8, 12, 14-20, 22, 24, and 25 are Non-Obvious over Mayer (US 5,633,037) and Appellants' admitted state of art, hereinafter "AAA," further in view of Hartung et al. (US 5,368,944), hereafter "Hartung," and further in view of Duda et al. (US 6,495,201), hereafter "Duda."

Claim 1

The PTO states as follows:

Mayer discloses a process for producing a multicoat refinish system comprising applying an aqueous clear (pigment-free) aqueous coating material (See column 14, lines 48-49, 59-60) in the region of the defect in the OEM finish, applying aqueous or water-thinnable basecoat composition containing metallic pigment to the coated clear layer (See column

> 1, lines 12-20) in such a way that it hides the area of damage, i.e. no shade difference is noticeable between the coating and the substrate, and is applied to the adjacent area, presprayed with the aqueous coating material described above, by the tapering-off spray technique (See column 15, lines 1-8); and applying to the basecoat a transparent top coat composition (See column 1, lines 20-25); and simultaneously drying all three layers at temperature up to 140°C (See column 1, lines 5-3 1). Overlapping of the original finish, i.e. applying the basecoat beyond the region of the first clear coating must be avoided in order to avoid marking the region of the edge zone by altered orientation of the metallic pigment (See column 15, lines 8-11)....
>
> As to claims 6-7, Mayer teaches that in addition to the variant of applying the coating material by the tapering-off spray technique it is also possible to apply this coating material to the area of damage and to the entire adjacent region of the original finish until a boundary is reached, for example an edge or a trim (See column 4, lines 25-30).
>
> 05/18/2009 Office Action page 3, para. 1, and page 8, para. 4.

Appellants respectfully submit that there are several very significant differences between Mayer and the presently claimed process. Importantly, Mayer is directed to a conventional refinish that repairs a damaged finish of an automobile, typically after having been built and used. Such conventional refinish will herein be referred to as a "post-OEM refinish" that takes place in "conventional refinish workshops." Thus, in contrast to the present invention, Mayer is directed to a process for post-OEM refinish for the repair of damage such as caused by an automobile accident or "fender bender." In no case does Mayer refer to overcoating or repairing of a "defect" in the original finish or to refinish at an automaker's plant. Rather, Mayer refers to refinishing in which a coating material is first applied to the prepared area of "damage, " which damage is mentioned four times in the Abstract of Mayer. Specifically, throughout the patent, Mayer refers to damage but never to a defect with respect to an original finish at the time of manufacture. Mayer states, "The object of the present invention is to provide a process for the production of a multicoat refinish paint system which process allows areas of damage to a multicoat metallic finish to be repaired." [Emphasis added.] In col. 17, lines 24-26, Mayer states, "A refinish area is simulated on this substrate by producing an area with the paint abraded to bare metal." [Emphasis added.]

The examples of Mayer further clarify that Mayer is directed to a post-OEM refinish. It is especially relevant that Mayer's examples disclose, in the original finish, a basecoat based on cellulose acetobutyrate, as compared to various refinish coatings that do not contain any

cellulose acetobutyrate. In addition, the refinishing in Mayer is conducted at 60°C, rather than the higher temperatures commonly used at a manufacturer's plant. It is clear that, in Mayer, none of the coating materials from the original finish are used in refinishing. Mayer states, for example, that a "conventional refinish primer surfacer" is applied. Col. 17, lines 29-30. In contrast, the present invention requires applying the extract "to an outer surface of the (original) multicoat paint system."

The compositions, conditions, preparation, and process steps used in post-OEM refinish workshops are typically quite different from those in an automaker's plant. Such refinish workshops, as shown by Mayer, use sanding and, contrary to present claim 1, refinish body filler. Such refinish workshops have greater latitude in choice of coating materials irrespective of the original OEM finish. Such post-OEM refinish processes conventionally use refinish basecoats that are not substantially related to the materials used in the OEM finish. Instead, shade differences during refinish avoided by independent selection of coating materials and coating techniques, including, for example, removal of the original basecoat, application of surface fillers, and the use of tapering. In contrast, the present process keeps the original basecoat and covers the damage by applying a new basecoat that is not tapered, i.e., is not matched to the original basecoat in other areas by a gradual reduction to zero thickness over an underlying refinish clearcoat.

Appellants respectfully submit that this does not amount to a teaching to apply the aqueous basecoat at a spraying pressure less than used to apply the clearcoat material, as required by claim 1. It simply does not follow that applying a second refinish basecoat at a lower pressure than a first refinish basecoat has any relevance to the relationship between the spray pressure of the underlying clearcoat and the first refinish basecoat. Moreover, Mayer teaches no relationship between "optimum coverage" of the tapered basecoat and the relationship of the basecoat and clearcoat spray pressures.

The Advisory Action, on pages 2 and 3, continues to focus on the issue of whether Mayer teaches a conventional refinish process or a refinish process used in an OEM line. On that issue, the Examiner argues that Appellants argue against their own disclosure, for the reason that the

present specification states, in reference to EP 0521 040 B2 (related to Mayer), that a "film-forming coating composition is first applied to the region of the defect in the OEM finish."

Appellants respectfully submit that it is quite clear that the present specification refers to EP 0521 040 B2 as "a process for producing a multicoat refinish in the conventional sense. This process constitutes a significant advance in refinish in the conventional sense." [Emphasis added.] It simply does not follow that the Appellants have stated, or otherwise implied that the refinish in Mayer occurs in an OEM line. Thus, Appellants respectfully submit that the PTO's arguments on that issue are in clear error.

It is clear then that, since Mayer is directed to a post-OEM refinish, Mayer necessarily does not teach using any coating materials related to the original basecoat, as required for the clearcoat of step (1) and the aqueous basecoat (3) of claim 1. Thus, Mayer cannot possibly teach these critical aspects of the present invention.

The PTO states that the coating materials in Mayer can comprise a polyurethane and an amino resin. 05/18/2009 Office Action page 3, second para. However, the point of the invention is that the refinish coating materials are related to the original coating materials. Mayer does not teach that relationship. That relationship cannot be replaced by "picking and choosing" from lists in the prior art based on hindsight in view of Appellants' disclosure. Mayer teaches the coating material can also be polyester or polyacrylate. Col. 4, lines 36-50. Moreover, Mayer does not teach the coating material of claim 24, which requires a blocked polyisocyanate or tris(alkoxycarbonylamino)triazine.

In other words, it would be happenstance if Mayer used coating materials in their refinish that "substantially corresponds or is identical to the aqueous basecoat material (in the original multicoat color/effect system)." In any case, it is quite clear that Mayer is not practicing the present process, because Mayer is not a process "carried out on a line at an automaker's plant."

Importantly, Mayer teaches nothing with respect to the original multicoat finish and, therefore, Mayer nowhere mentions electrostatic spray application of the original finish, as required by the present claims. As described in the present application, it was surprisingly found that the multicoat color and/or effect paint systems with which OEM finishes were overcoated no

longer exhibited any deleterious shift in shade and/or any deleterious change in optical effect, especially metallic effect, even though the original finish had been produced by means of electrostatic spray application and the refinish was produced by pneumatic spraying.

In fact, Mayer teaches a tapering technique that is used to compensate for the fact that the refinish basecoat is, contrary to the present claims, different from the original basecoat. The tapering involves applying the refinish basecoat so that it "tapers off into the adjacent areas," so that "from the edge of the area of damage outwards the film thickness gradually diminishes to 0 μm." Col. 1, line 65, to col. 2, line 1. This technique is used to compensate for a change in shade, by gradually blending the different refinish paint shade into the original paint shade.

Furthermore, the PTO (above quoted) is incorrect in stating that Mayer teaches that, in addition to the variant of applying the coating material by the tapering-off spray technique, "it is also possible to apply this coating material to the area of damage and to the entire adjacent region of the original finish until a boundary is reached, for example an edge or a trim (See column 4, lines 25-30)." This quote, however, does not apply to the basecoat of Mayer, only to the clearcoat below the basecoat. Mayer requires "an aqueous basecoat composition…[that] gradually diminishes outwards from the edge of the area of damage to 0 μm within the adjacent region of the original finish coated with the first coating film." Mayer, claim 1.

Furthermore, the PTO fails to note that not tapering the coating materials under the basecoat "is of significance for those metallic colors which normally create problems, for example on account of a low hiding power of the basecoats." Specifically, Mayer states, "It is then particularly advantageous for the coating material to contain coloring pigments which allow an improved shade match with the original finish." Thus, Mayer states that for difficult metallic colors, the clearcoat can be replaced by a colored coating that is not tapered, in which case the coating material is not a clearcoat as required by present claim 1.

In any case, the tapering technique of Mayer, with respect to the refinish basecoat, is critical to Mayer's use of the "aqueous coating material" that goes under the refinish basecoat. The aqueous coating material can be a clearcoat that is tapered or, in difficult cases, a lightly colored coating material that is not tapered. Mayer makes it very clear that the refinish basecoat must not extend beyond the underlying coating material, so that tapering to 0 μm of necessity

would involve leaving a boundary area uncoated by refinish basecoat, contrary to the presently claimed invention.

It is also important to note that the "extract" used for film (1) in the present OEM refinish is for a different purpose than the "aqueous coating material" of Mayer. Mayer uses the aqueous coating material to correct a problem otherwise caused by tapering of the refinish basecoat. Mayer states:

> In particular, when the known aqueous basecoats are applied directly, for this purpose to an aqueous refinish body filler, the area of damage cannot be repaired satisfactorily, since this gives rise to shade changes and special effect variations in the area of damage. Repair of the areas of damage using the blend-in spraying technique described above is likewise not satisfactorily possible. This is due to the fact that the required tapering-off spraying into the adjacent part regularly leads to an altered orientation of the effect–producing pigments and hence to shade changes…." (Col. 2, lines 16-30.)

Thus, though both Mayer and the present invention relate to preventing shade changes due to altered orientation, it is for altered orientation arising from entirely different causes. In Mayer, the altered orientation is caused by a change in coating thickness (i.e., tapering off), which in turn is necessary because of the lack of relationship between the original and refinish basecoats (i.e., they are substantially <u>different materials</u>), whereas in the present invention the altered orientation is caused by a change from electrostatic to pneumatic spraying (i.e., <u>different spraying techniques</u>). It is very unclear how the latter problem in OEM refinish could be solved based on Mayer's different solution to a different problem in post-OEM refinish. Moreover, it would be entirely unobvious and unpredictable that an extract such as presently claimed could solve the problem of shade change due to a change from electrostatic to pneumatic spraying.

As stated in the present specification, on page 1, paragraphs [003] and [0004]:

> The basic assumption in the art is that a shade and/or optical effect produced by ESTA application [electrostatic spray application] cannot be copied pneumatically. In order to prevent at least partly the shift in shade and change in optical effect, OEM finishes are refinished on the line at the automaker's plant using conventional basecoat materials, i.e., based on materials comprising organic solvents, whose shade and/or optical effect are adapted to those of the basecoats to be refinished. However, this approach is very complicated, since a conventional basecoat material has to be prepared and stocked at the automaker's plant separately for <u>every</u> production shade and/or effect. [Emphasis added]

The PTO has provided no grounds for the assumption that one of ordinary skill in the art would assume that an ESTA original finish and a pneumatically applied refinish coating would match in shade or effect. In light of the prior art, it was surprising and unforeseeable that the object on which the present invention was based could be achieved by means of the refinish process of the present invention. As stated in the original specification, it was indeed surprising that the overcoated OEM refinish of the present invention did not exhibit any deleterious shift in shade and/or any deleterious change in optical effect, especially metallic effect, particularly when the original finish had been produced by means of electrostatic spray application. This meant that, contrary to the opinion of the art, it was indeed surprisingly possible to copy pneumatically the shades and optical effects produced by means of ESTA application.

Moreover, the present problem of using pneumatic spraying to repair an OEM finish made by electrostatic spraying is actually emphasized and reinforced by the statements in the PTO's rejection. The PTO states:

> Mayer teaches that the repair of metallic paints is particularly difficult, since the shade and brightness of **the special effect are highly dependent on the method of working; the width of the spray gun nozzle and the spray pressure**, inter alia, play a crucial role (See column 1, lines 32-42) as well as the method of thinning and the spray viscosity likewise influence shade and special effect (See column 1, lines 42-43).

(05/18/2009 Office Action page 4, lines 8-15.)

Thus, while Mayer specifically mentions that the refinish is very sensitive to spraying characteristics, Mayer does not address compensating for an original electrostatically applied coating, nor does Mayer select coating materials that, without tapering, provide shade matching of a pneumatically applied coating with an electrostatically applied coating. Mayer nowhere suggests how an electrostatically applied coating can be reconciled with a pneumatically applied coating using, as part of the solution, the same or substantially the same materials.

In summary, Mayer discloses post-OEM refinish for repairing damage caused by accidents outside an automobile manufacturer's plant. Mayer says nothing about using a coating composition that is a pigment-free extract of the original finish basecoat. Furthermore, Mayer says nothing about electrostatic spraying of the original basecoat. Mayer says nothing about the use of a particular binder and crosslinking agent, as required by claim 24, in both the original

basecoat and the aqueous material. Mayer says nothing about compensating for a change from electrostatic to pneumatic spraying. Mayer says nothing about post-OEM refinish that does not use a primer-surfacer or sanding to bare metal.

The Examiner has previously conceded that "Mayer fails to teach that the same basecoat is used in original finish and in the repair finish." (01/06/2009 Office Action page 5, para. 4.) The PTO, therefore, cites Hartung, stating:

> As to carrying out the process on a line at an automakers's plant, Hartung et al. teaches that refinishing can be effected shortly after the original finishing on the production line using a fresh coating of basecoat and clearcoat as well as after the automobile has been built (See column 5, lines 62-68).
>
> Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have carried out refinishing in Mayer not after the automobile has been built but shortly after the original finishing on the production line using a fresh coating of basecoat and clearcoat, since Hartung et al. teaches that refinishing can be effected shortly after the original finishing on the production line using a fresh coating of basecoat and clearcoat as well as after the automobile has been built.

(05/18/2009 Office Action page 5, para. 1 and 2.)

Appellants respectfully submit, that Hartung does not teach a fresh coating of basecoat and clearcoat with <u>any</u> refinish process, but only with Hartung's refinish process. Thus, even assuming one were to use Mayer's refinish process in an automotive plant, it would not involve the related materials and process steps that are presently claimed. In other words, the fact that refinish can occur either on a production line or after the automobile has been on the road does not mean that the refinish processes in the different settings can be mixed and matched without reason. As noted by Hartung, for example, baking temperatures in the latter (OEM) case are generally up to 140°C, whereas in the second (post-OEM) case baking temperatures are more typically up to about 80°C. What works at one temperature may not work at a substantially different temperature.

Furthermore, Hartung does not teach or remotely suggest that Mayer's use of an underlying clearcoat should be used without the tapering. Both are necessary in Mayer. Hartung says absolutely nothing about the use of a clearcoat extract and makes no mention or suggestion with respect to the tapering technique of Mayer. There is nothing in Hartung that

remotely suggests that one of ordinary skill in the art should use the same basecoat and clearcoat for producing both the original finish and repair finish without using a primer-surfacer or sanding to bare metal. There is nothing in Hartung that remotely suggests using electrostatic spraying for the original basecoat and pneumatic spraying for the refinish basecoat. In fact, there is absolutely no teaching of this in either Mayer or Hartung. The mere assertion that OEM refinish, in general, occurs shortly after OEM original finish, falls far short of any such teachings. Similarly, the mere assertion that Mayer states that there is "no shade difference" in Mayer's particular refinish process, does not render null and void all improvements with respect to shade differences in a completely different setting with different materials and techniques.

Moreover, Hartung enforces Mayer's teaching of requiring a "body filler coat" or primer-surfacer, as compared to the present process of applying the extract to the surface of the original finish. Hartung states that "In the finishing of automobile bodies the basecoats are usually applied over the body filler coat." (Col. 6, lines 28-31.)

Finally, with respect to present independent claim 24, the polyurethane and specified crosslinker used in the present extract are nowhere taught by Hartung. In particular, independent claim 24 requires that the aqueous basecoat material (A) and the extract comprise at least one ionically and/or nonionically stabilized polyurethane binder which is saturated, unsaturated, and/or grafted with olefinically unsaturated compounds and, furthermore, that the aqueous basecoat material (A) and the extract further comprise at least one crosslinking agent selected from the group consisting of blocked polyisocyanates and tris(alkoxycarbonylamino)triazines. This combination is not mentioned in Mayer or Hartung. Moreover, none of the four aqueous coating compositions used in the working examples of Mayer comprise any crosslinking agent at all.

The PTO asserts:

> Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have carried out refinishing in Mayer shortly after the original finishing on the production line using a fresh coating of the original basecoat and clearcoat since Hartung et al teaches that refinishing can be effected shortly after the original finishing on the production line using a fresh coating of basecoat and clearcoat, and Mayer discloses that a basecoat composition containing metallic pigment should be applied to the coated clear layer in such a way that no shade difference is noticeable between the coating and the OEM substrate.

(05/18/2009 Office Action page 5, last para.)

As mentioned above, Hartung says nothing about tapering or the use of clearcoats under basecoats to compensate for tapering. Mayer says nothing about using a freshly applied original basecoat. This is hindsight combination of the references. The use of Mayer's process without tapering in an OEM setting is nowhere taught by the references. Furthermore, such unreasonable modifications to Mayer's process would be entirely unpredictable in effect. Why would Mayer even use the tapered basecoat and underlying coating material if Mayer was merely applying the same/fresh basecoat and topcoat instead of different basecoat materials? Thus, the hindsight modification of Mayer is contrary to the purpose of Mayer's process. The prior art does not teach obtaining the significant advantages of the present invention, including solving the problem associated with the change from electrostatic to pneumatic spraying.

With respect to Hartung, the PTO, in the Advisory Action, further argues that it would have been obvious to use the same basecoat and clearcoat in OEM refinish as in the OEM original basecoat and clearcoat. Again, even assuming *arguendo* that this is correct and also assuming *arguendo*, as before, that Mayer's refinish can be used in OEM refinish, this is clearly insufficient to teach the present invention. Thus, the Examiner has simply not provided sufficient reasons to explain how one of ordinary skill in the art would have arrived at the present process, in the absence of hindsight based on Appellants' own invention. The asserted teachings in the prior art, even disregarding the error in the Examiner's interpretation of the prior art, as discussed above, fall far short of the presently claimed invention.

As to the electrostatic coating of the original finish, as required as an integral part of the claimed process, the PTO attempts several different approaches: (1) ignoring the electrostatic limitation, or (2) arguing that it is Appellants' Admitted Art (AAA).

Regarding approach (1) in which the electrostatic spray application of the original finish required by claim 1 is ignored, the PTO states:

> As to electrostatic spray application, it is noted that "an OEM finish on a motor vehicle produced by means of electrostatic spray application" is product-by-process limitation. It is well settled that "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The

> patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695,698,227 USPQ 964,966 (Fed. Cir. 1985). Therefore, claimed OEM finish read on OEM finish of Mayer. Burden shifts to Appellants to show that OEM finish applied by means of electrostatic spray application should be different from that applied by e.g. pneumatic spray gun.

(05/18/2009 Office Action page 6, para. 2)

Appellants respectfully submit that the present invention is directed to a process, not a product-by-process. Hence In re Thorpe is not on point. Electrostatic application of the OEM finish is clearly a positive limitation of claim 1 and, in fact, clearly a relevant part of the invention as a whole. The fact that electrostatic spraying of OEM is *per se* known does not negate the fact that electrostatically spraying the original finish is nowhere taught by Mayer or Hartung. (Appellants offered to rephrase the process limitation with respect to electrostatic spray application, if the Examiner would be receptive to acknowledging allowable subject matter.)

Regarding approach (2) in the PTO, in which the electrostatic spray application of the original finish required by claim 1 is asserted to be AAA, the PTO states as follows:

> Moreover, Appellants are willing to concede that electrostatic spraying of OEM finishes are per se known in the art (see page 16 of Remarks filed on 4/6/2009). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied OEM in Mayer electrostatic spraying since electrostatic spraying of OEM finishes are known in the art, and Mayer does not limit its teaching to a particular technique of applying OEM.

05/18/2009 Office Action page 5, para. 3.

Again, however, it does not follow that the relationship of the electrostatic spraying to the rest of claim 1 as a whole is obvious, i.e., there is no teaching of Appellants' solution to the problem of shade change caused by the different spray techniques. Thus, "picking and choosing" known elements from diverse references does not teach the present invention as a whole unless there is some reason for the combination. The PTO merely asserts Mayer does not limit its teaching to a particular technique of applying OEM.

Furthermore, claim 1 also requires that the aqueous basecoat be applied at a spraying pressure lower than the underlying clearcoat material. The PTO states:

> In the case of difficult colors, the edge zone can be resprayed using lower spray pressure using low-solid conventional special-effect paints (See column 2, lines 1-5) and water-thinnable base materials (See column 3, lines 52-62).
>
> If it could be argued that as metallic basecoats are sprayed over the first clear coat at lower pressure than the first clear layer, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have applied a basecoat at less pressure that the first layer with the expectation of providing the desired tapered optimum coverage of original finish.

(05/18/2009 Office Action page 6, para. 2)

Appellants have conceded that electrostatic spraying of OEM finishes is *per se* known in the art. However, this does not correct any of the above-noted deficiencies of Mayer or Mayer in view of Hartung or the other cited references not mentioned in the Advisory Action. Hence, the claimed relationship between the pneumatically sprayed refinish and the electrostatically sprayed original finish, in an automotive plant, or Appellants' solution to the resulting problem of paint orientation, is nowhere taught or remotely suggested by any of the cited references. For the above reasons, taken as a whole, it is respectfully submitted that the cited combination fails to provide the requisite motivation for a prima facie case of obviousness.

Furthermore, in light of the prior art, it was surprising and unforeseeable that the object on which the present invention was based could be achieved by means of the refinish process of the present invention. As stated in the original specification, it was indeed surprising that the overcoated OEM refinish of the present invention did not exhibit any deleterious shift in shade and/or any deleterious change in optical effect, especially metallic effect, particularly when the original finish had been produced by means of electrostatic spray application. This meant that, contrary to the opinion of the art, it was indeed surprisingly possible to copy pneumatically the shades and optical effects produced by means of ESTA application.

Claim 24

Claim 24 further requires that the clearcoat material has a lower concentration than employed in the aqueous basecoat material, in addition to requiring that the basecoat comprise a polyurethane and a crosslinking agent selected from the group consisting of blocked

polyisocyanates and tris(alkoxycarbonylamino)triazines. The PTO, on page 9, last paragraph, states:

> Mayer teaches that as described in Chapter 7 "Automotive Refinishing" of the Glasurit Handbook, in the case of metallic multicoat finishes… the repair area and the adjacent parts are resprayed with a solvent-borne, **highly thinned** clearcoat…it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used clearcoat having concentration lower than that of the basecoat depending on the particular application since Mayer does not limit its teaching to particular concentrations of clear and basecoats.

(05/18/2009 Office Action page 9, last para.)

Appellants respectfully submit, however, that this alleged teaching is insufficient for two reasons. First, the PTO is referring to a solvent-borne coating system, whereas both the present invention and Mayer are, in fact, directed to aqueous coatings. Thus, the PTO has mistakenly referred to the prior art, which Mayer used to show the background of the invention and which prior art was used as the comparison in Mayer, in Comparison Examples 4 and 5, col. 23. In fact, Mayer uses an aqueous coating composition which is intentionally not thinned, but rather which has the same solids concentration as the basecoat composition. Thus, Mayer actually teaches away from the presently claimed invention in this respect.

Furthermore, as stated above, none of the references teach the use of a clearcoat extract (in any refinish process, let alone an OEM refinish process) that comprises at least one ionically and/or non-ionically stabilized polyurethane binder which is saturated, unsaturated, and/or grafted with olefinically unsaturated compounds, and a crosslinking agent selected from the group consisting of blocked polyisocyanates and tris(alkoxycarbonylamino)triazines.

Finally, the PTO cites Duda et al. for teaching a pneumatic spray gun, as stated in the Office Action on page 6, para. 5. Appellants do not disagree that pneumatic spray guns are conventionally used for vehicle repair coating. Again, however, there is no teaching of pneumatic spraying, for refinish, following electrostatic spraying for the original finish, both in an automotive plant.

Claim 25

Furthermore, Mayer alone, or in combination with the other references, fails to teach, as required by claim 25, that the pneumatic spray application in step (3), with respect to the refinish basecoat, is conducted at a spraying pressure of from 0.3 to 1.8 bar, compared to the pneumatic spray application in step (1), with respect to the clearcoat extract, which is conducted with a spraying pressure of from 2.5 to 5 bar. In fact, Mayer employs a spray pressure of 2-3 bar for the refinish basecoat, which is higher than required by claim 25.

2. Claims 1-3, 5-8, 12, 14-20, 22, 24, and 25 are Non-obvious over Mayer (US 5,633,037) and AAA, further in view of Hartung et al. (US 5,368,944), and further in view of Duda et al. (US 6,495,201), as applied above, and further in view of Sakamoto et al. (US 6,168,864), hereafter "Sakamoto."

Claim 1

Mayer, Hartung, the AAA, and Duda were all discussed above. With respect to Sakamoto et al. (hereafter "Sakamoto"), the PTO states as follows:

> As to electrostatic spray application, the cited prior art fails to teach that the OEM finish comprising aqueous basecoat and liquid clear coat is produced by an *electrostatic* spray application.
>
> Sakamoto et al teaches that a multilayer automotive coating film comprising aqueous basecoat (See column 7, lines 1-5) and a liquid clear coat (See column 7, lines 13-14) may be produced by *electrostatically* spraying the liquid clear coat over spray coated basecoat (See column 12, lines 13-21). The spray coating of the basecoat can be performed using an air spray coater, airless spray coater, air atomizing or rotary atomizing electrostatic coater (See column 8, lines 25-28).
>
> It would have been obvious to one of ordinary skill in the art at the time the invention was made to have produced a multilayer automotive coating in the cited prior art using electrostatic spraying since Sakamoto et al teaches that a multilayer automotive coating film comprising aqueous basecoat and a liquid clear coat may be produced by *electrostatically* spraying, and Mayer does not limit its teaching to particular techniques of applying OEM.

(05/18/2009 Office Action page 11, para. 2.)

As indicated above, Appellants are willing to concede that electrostatic spraying of OEM finishes are *per se* known in the art. However, this does not correct any of the above-noted deficiencies of Mayer or Mayer in view of Hartung, Duda, and now Sakamoto. Sakamoto is

apparently directed to a particular cationic electrodeposition coat formed from an epoxy-based cationic composition. (Abstract.) Importantly, Sakamoto says nothing about refinishing; Sakamoto mentions neither a refinishing process nor a refinishing composition. Hence, the claimed relationship between the pneumatically sprayed refinish and the electrostatically sprayed original finish, in an automotive plant, or Appellants' solution to the resulting problem of orientation, is nowhere taught or remotely suggested by any of the cited references.

Taken as a whole, it is respectfully submitted that the cited combination fails to provide the requisite motivation for a prima facie case of obviousness.

Claim 24

Claim 24 further requires that the clearcoat material have a lower concentration than employed in the aqueous basecoat material, in addition to requiring that the basecoat comprise a polyurethane and a crosslinking agent selected from the group consisting of blocked polyisocyanates and tris(alkoxycarbonylamino)triazines. The PTO states:

> Mayer teaches that as described in Chapter 7 "Automotive Refinishing" of the Glasurit Handbook, in the case of metallic multicoat finishes… the repair area and the adjacent parts are resprayed with a solvent-borne, **highly thinned** clearcoat…it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used clearcoat having concentration lower than that of the basecoat depending on the particular application since Mayer does not limit its teaching to particular concentrations of clear and basecoats.

(05/18/2009 Office Action page 9, last para.)

As stated above with the previous rejection of claim 24, Appellants respectfully submit, however, that this alleged teaching is insufficient for two reasons. The PTO is referring to a solvent-borne coating system, not an aqueous system. In fact, Mayer uses an aqueous coating composition which is intentionally not thinned, but rather which has the same solids concentration as the basecoat composition, therefore, teaching away from the presently claimed invention in this respect.

Furthermore, as also stated above, none of the references teach the use of a clearcoat extract (in any refinish process, let alone an OEM refinish process) that comprises at least one ionically and/or non-ionically stabilized polyurethane binder which is saturated, unsaturated, and/or grafted with olefinically unsaturated compounds, and a crosslinking agent selected from the group consisting of blocked polyisocyanates and tris(alkoxycarbonylamino)triazines.

Finally, with respect to Duda et al., there is no teaching of pneumatic spraying, for refinish, following electrostatic spraying for the original finish, both in an automotive plant.

Claim 25

As stated above with respect to the previous rejection of claim 25, Mayer alone, or in combination with the other references, fails to teach, as required by claim 25, that the pneumatic spray application in step (3), with respect to the refinish basecoat, is conducted at a spraying pressure of from 0.3 to 1.8 bar, compared to the pneumatic spray application in step (1), with respect to the clearcoat extract, which is conducted with a spraying pressure of from 2.5 to 5 bar. In fact, Mayer employs a spray pressure of 2-3 bar for the refinish basecoat, which is higher than required by claim 25.

Conclusion

For the above reasons, Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the rejections of the Examiner and mandate the allowance of the claims.

Respectfully Submitted,

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VIII. CLAIMS APPENDIX

1. A process for overcoating a multicoat color and/or effect paint system, wherein the process is carried out on a line at an automaker's plant and wherein the multicoat color and/or effect paint system, which is an OEM finish on a motor vehicle produced by means of electrostatic spray application, comprises at least one color and/or effect basecoat (A) produced from at least one aqueous basecoat material (A) and at least one clearcoat (B) produced from at least one liquid clearcoat material (B), the process comprising:

(1) applying to an outer surface of the multicoat paint system by pneumatic spray application a clearcoat material that is an extract of an aqueous basecoat material, which substantially corresponds or is identical to the aqueous basecoat material (A) or one of the aqueous basecoat materials (A) from which the basecoat (A) was produced, to form a resulting film (1), wherein the extract is a coating material which comprises a binder and crosslinking agent that are the same as a binder and crosslinking agent in the aqueous basecoat material (A),

(2) flashing off and/or drying the resulting film (1) without curing it completely,

(3) coating the resulting flashed off and/or dried film (2) by pneumatic spray application at a spraying pressure less than the pneumatic spray in step (1) with an aqueous basecoat material which substantially corresponds or is identical to the aqueous basecoat material (A) or one of the aqueous basecoat material (A) from which the basecoat (A) was produced to form a resulting aqueous basecoat film (3),

(4) flashing off and/or drying the resulting aqueous basecoat film (3) without curing it completely,

(5) coating the resulting flashed off and/or dried aqueous basecoat film (4) with at least one liquid clearcoat material to form at least one resulting clearcoat film, and

(6) jointly curing the at least one resulting clearcoat film (5), the aqueous basecoat film (4), and the film (1), and, where present, any further uncured films that are present,

wherein the process is used for overcoating an entire area of the multicoat paint system or for overcoating a defect to the multicoat paint system and all of the adjacent area up to a boundary.

2. The process of claim 1, wherein the multicoat paint system was produced by a wet on wet technique.

3. The process of claim 1, wherein the extract comprises the same binder or binders and the same crosslinking agent or agents as in the aqueous basecoat material (A).

5. The process of claim 1, wherein the pneumatic spray application in step (3) is applied at a spraying pressure of from 0.3 to 2 bar.

6. The process of claim 1, wherein the whole area of the multicoat paint system is overcoated.

7. The process of claim 1, wherein the multicoat paint system is overcoated at a defect and also in an entire adjacent area up to a boundary.

8. The process of claim 1, wherein prior to step (1) at least one defect in the multicoat paint system is prepared by cleaning and/or abrading.

12. The process of claim 1, wherein the extract is completely free from pigments.

14. The process of claim 1, wherein the resulting film (1) in step (1) is applied in a total wet film thickness such that curing thereof in step (6) results in a dry film thickness of from 2 to 50 μm.

15. The process of claim 1, wherein the flashing off and/or drying of the resulting film (1) in step (2) and/or of the film (3) in step (4) is/are accelerated by raising the temperature of the films (1) and/or (3), passing a laminar air flow over the films (1) and/or (3), and/or reducing the humidity in the ambient atmosphere.

16. The process of claim 1, wherein the at least one clearcoat material in step (5) is applied with a spraying pressure of from 2.5 to 5 bar.

17. The process of claim 1, wherein the at least one clearcoat film applied in step (5) is flashed off prior to curing in step (6).

18. The process of claim 1, wherein the at least one clearcoat material comprises a one-component clearcoat material, a two-component clearcoat material, or a dual-cure clearcoat material.

19. The process of claim 1, wherein the at least one clearcoat material corresponds substantially or is identical to the at least one clearcoat material (B) from which the at least one clearcoat (B) of the multicoat paint system was produced.

20. The process of claim 18, wherein

(i) the one-component clearcoat material comprises one of
(a) a hydroxyl-containing binder and a crosslinking agent that is at least one of a blocked polyisocyanate, a tris(alkoxycarbonylamino)triazine, and/or an amino resin, or
(b) at least one binder comprising a polymer containing pendant carbamate and/or allophanate groups and a crosslinking agent comprising an amino resin,

(ii) the two-component clearcoat materials comprise a hydroxyl-containing binder and a crosslinking agent comprising a polyisocyanate, and

(iii) the dual-cure clearcoat materials are one-component clearcoat materials or two-component clearcoat materials which additionally contain functional groups which can be activated with actinic radiation and/or additional constituents containing such functional groups.

22. The process of claim 1, wherein the motor vehicle is an automobile.

24. (Previously Presented) A process for overcoating a multicoat color and/or effect paint system, wherein the process is carried out on a line at an automaker's plant and wherein the multicoat color and/or effect paint system, which is an OEM finish on a motor vehicle produced by means of electrostatic spray application, comprises at least one color and/or effect basecoat (A) produced from at least one aqueous basecoat material (A) and at least one clearcoat (B) produced from at least one liquid clearcoat material (B), the process comprising:

(1) applying to an outer surface of the multicoat paint system by pneumatic spray application a clearcoat material that is an extract of an aqueous basecoat material, which substantially corresponds or is identical to the aqueous basecoat material (A) or one of the

aqueous basecoat materials (A) from which the basecoat (A) was produced, to form a resulting film (1), wherein the extract is a coating material which comprises binder and crosslinking agent which is the same binder or binders and the same crosslinking agent or agents as in the aqueous basecoat material (A), except at lower concentrations than are employed in the aqueous basecoat material (A),

(2) flashing off and/or drying the resulting film (1) without curing it completely,

(3) coating the resulting flashed off and/or dried film (2) by pneumatic spray application at a spraying pressure less than the pneumatic spray in step (1) with an aqueous basecoat material which substantially corresponds or is identical to the aqueous basecoat material (A) or one of the aqueous basecoat material (A) from which the basecoat (A) was produced, to form a resulting aqueous basecoat film (3),

(4) flashing off and/or drying the resulting aqueous basecoat film (3) without curing it completely,

(5) coating the resulting flashed off and/or dried aqueous basecoat film (4) with at least one liquid clearcoat material to form at least one resulting clearcoat film, and

(6) jointly curing the at least one resulting clearcoat film (5), the aqueous basecoat film (4) and the film (1), and, where present, any further uncured films that are present,

wherein the aqueous basecoat material (A) and the extract comprise at least one ionically and/or nonionically stabilized polyurethane binder which is saturated, unsaturated, and/or grafted with olefinically unsaturated compounds,

wherein the aqueous basecoat material (A) and the extract further comprise at least one crosslinking agent selected from the group consisting of blocked polyisocyanates and tris(alkoxycarbonylamino)triazines, and

wherein the process is used for overcoating an entire area of the multicoat paint system or for overcoating a defect to the multicoat paint system and all of the adjacent area up to a boundary.

25. The process of claim 24, wherein the pneumatic spray application in step (3) is conducted at a spraying pressure of from 0.3 to 1.8 bar, and the pneumatic spray application in step (1) is conducted with a spraying pressure of from 2.5 to 5 bar.

IX. EVIDENCE APPENDIX

None.

X. RELATED PROCEEDING APPENDIX

There are no other related appeals or interferences known to Appellants, Appellants' legal representatives, or assignee that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.